IN THE CLAIMS:

Please amend the claims as set forth below:

1. (Currently Amended) An apparatus comprising:

a computing node configured to generate a request to open a file, wherein said computing node is configured not to cache data from said file; and

a metadata server coupled to receive said request, wherein said metadata server is configured to provide at least a first file identifier corresponding to said file responsive to said request, said first file identifier identifying at least a portion of said file within a storage storing said file, and wherein said metadata server is further configured to provide a device identifier identifying said storage on an interconnect to which at least said computing node and said storage are coupled;

wherein said computing node is coupled to receive said first file identifier and said device identifier for directly accessing said storage on said interconnect.

2-3. (Cancelled)

4. (Original) The apparatus as recited in claim 1 wherein said metadata server is configured to assign an access key to said request.

5. (Original) The apparatus as recited in claim 4 wherein said computing node is coupled to receive said access key, and wherein said computing node is configured to transmit said access key with an access command to said storage.

6. (Original) The apparatus as recited in claim 5 further comprising said storage, wherein said storage is coupled to receive said access key from said metadata server, and wherein said storage is configured to validate said access key from said computing node.

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7. (Original) The apparatus as recited in claim 1 further comprising said storage, wherein said computing node is configured to transmit an access command to said storage to close said file, and wherein said storage is configured to transmit an indication to said metadata server including said first file identifier to inform said metadata server of said file being closed.

8. (Original) The apparatus as recited in claim 1 wherein said request includes a file name of said file.

9. (Original) The apparatus as recited in claim 8 wherein said metadata server includes a directory, and wherein said directory maps said file name to said first file identifier.

10. (Original) The apparatus as recited in claim 1 further comprising said storage, wherein said computing node is configured to transmit an access command to said storage to access one or more bytes, and wherein a number of said one or more bytes affected by said access command is not equal to a block size of said storage.

11. (Currently Amended) The apparatus as recited in claim 1 further comprising said storage and ~~an~~ said interconnect, wherein said computing node, said metadata server, and said storage are each coupled directly to said interconnect.

12 (Currently Amended) The apparatus as recited in claim 11 wherein said computing node is configured to transmit said request to said metadata server through said interconnect, and wherein said computing node is configured to receive said first file identifier <u>and said device identifier</u> from said metadata server through said interconnect.

13. (Cancelled)

14. (Original) The apparatus as recited in claim 1 further comprising said storage, wherein said computing node is configured to transmit an access command to said

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metadata server to close said file, and wherein said metadata server is configured to transmit an indication to said storage including said first file identifier to inform said storage of said file being closed.

15. (Currently Amended) A method comprising:

generating a request to open a file from a computing node;

providing at least a first file identifier corresponding to said file from a metadata server responsive to ~~said generating~~ said request, said first file identifier corresponding to said file and identifying said file within a storage storing at least a portion of said file; ~~and~~

providing a device identifier identifying said storage on an interconnect to which at least said computing node and said storage are coupled, the providing responsive to said request; and

directly accessing said storage from said computing node on said interconnect responsive to said first file identifier and said device identifier, wherein said computing node is configured not to cache data from said file.

16-17. (Cancelled)

18. (Original) The method as recited in claim 15 further comprising assigning an access key to said computing node responsive to said generating said request.

19. (Original) The method as recited in claim 18 further comprising transmitting said access key from said computing node to said storage with an access command for said storage.

20. (Original) The method as recited in claim 19 further comprising:

receiving said access key from said metadata server into said storage;

receiving said access key from said computing node into said storage; and

validating said access key from said computing node using said access key from said metadata server.

21. (Original) The method as recited in claim 15 wherein said directly accessing comprises generating an access command for one or more bytes and transmitting said access command to said storage, wherein a number of said one or more bytes does not equal a block size of said storage.

22-31. (Cancelled)

32. (New) The apparatus as recited in claim 1 wherein said interconnect comprises one or more devices configured to route communications on said interconnect, and wherein said one or more devices are configured to use said device identifier to route communications from said computing node to said storage.

33. (New) The apparatus as recited in claim 1 wherein said storage is configured to detect direct accesses by said computing node to said storage on said interconnect using said device identifier.

34. (New) The method as recited in claim 15 wherein said interconnect comprises one or more devices configured to route communications on said interconnect, and wherein the method further comprises said one or more devices using said device identifier to route communications from said computing node to said storage.

35. (New) The method as recited in claim 15 further comprising said storage detecting direct accesses by said computing node to said storage on said interconnect using said

device identifier.